

REMARKS/ARGUMENTS

In this response, the applicant has amended claims 1, 3, 11–14 and 21, and canceled claims 10, 20, and 22–26, without prejudice or disclaimer. Applicant submits that the aforementioned changes do not add new subject matter, and that the amendments are supported by the specification as originally filed.

Rejection Under 35 U.S.C. §102

The Examiner has rejected claims 1, 12, and 20–26, under 35 U.S.C. §102(e) as anticipated by Skladnev et al. (U. S. Patent No. 6,845,264). Reconsideration thereof is requested in light of the following.

Claims 1 and 12 have been amended to specify that the method and system comprises a multiplexing unit N body leads for electrically connecting the multiplexing unit to the body part, an impedance module for generating a current and for measuring a resultant voltage, the impedance module calculating an impedance from the current and the resultant voltage a controller switching unit electrically connecting the impedance module to the multiplexing unit, the controller switching unit having a first switch connected to the multiplexer and at least a second switch connected to the multiplexer for to allowing the current to flow through the body part between two body leads, n_1 and n_2 of the N body leads, and the resultant voltage to be measured between two body leads, n_3 and n_4 of the N body leads, where $n_1 \neq n_2$ and $n_3 \neq n_4$, but where n_1 n_2 n_3 and n_4 need not otherwise be distinct, a current input lead connected to the first switch for injecting the current into the body part, a current output lead connected to the second switch for receiving the current from the body part, and a first voltage lead

connected to the first switch and a second voltage lead connected to the second switch for measuring the resultant voltage.

Applicant submits that Skladnev et al. does not use two stage switching: a controller switching unit and a multiplexing unit. This is now emphasized in amended claims 1 and 12 as described above. Rather, applicant submits, Skladnev et al. uses a flat multiplexing approach that allows each signal lead to connect to every other one with a single stage multiplexer. The "switching" shown in Skladnev et al., as referenced by the Examiner uses more multiplexer channels which have capacitance which will perturb measurements such as the ones applicant is making with the present invention.

The controller switching unit in applicant's invention, and as now claimed, is a switching unit that adds additional measurement combination opportunities. Applicant submits that the switching described by Skladnev et al. is a controller for the single stage switch and does not do additional switching itself.

Accordingly, applicant submits that the claims are not anticipated by the Skladnev et al. reference.

Rejection Under 35 U.S.C. §103(a)

The Examiner objected to claims 2–6, 8, 13–17 under 35 U.S.C. §103(a) as unpatentable over Skladnev et al. in view of Boone et al. (U. S. Patent No. 5,919,142). In addition, the Examiner objected to claims 7 and 18 under 35 U.S.C. §103(a) as unpatentable over Skladnev et al. in view of Papa (U. S. Patent No. 4,184,486), and claims 9–11, and 19 under 35 U.S.C. §103(a) as unpatentable over

Skladnev et al. in view of Faupel (U. S. Patent No. 5,415,164). Reconsideration is requested.


In particular, as mentioned, claims 1 and 12 have been amended to specify that the method and system comprises a multiplexing unit N body leads for electrically connecting the multiplexing unit to the body part, an impedance module for generating a current and for measuring a resultant voltage, the impedance module calculating an impedance from the current and the resultant voltage a controller switching unit electrically connecting the impedance module to the multiplexing unit, the controller switching unit having a first switch connected to the multiplexer and at least a second switch connected to the multiplexer for to allowing the current to flow through the body part between two body leads, n_1 and n_2 of the N body leads, and the resultant voltage to be measured between two body leads, n_3 and n_4 of the N body leads, where $n_1 \neq n_2$ and $n_3 \neq n_4$, but where n_1 n_2 n_3 and n_4 need not otherwise be distinct, a current input lead connected to the first switch for injecting the current into the body part, a current output lead connected to the second switch for receiving the current from the body part, and a first voltage lead connected to the first switch and a second voltage lead connected to the second switch for measuring the resultant voltage.

Applicant submits that none of the references as combined by the Examiner disclose or teach these features. Consider also, that the controller switching unit in applicant's invention is not connected to the multiplexer in order to apply current in a desired excitation sequence, as disclosed in the references cited by the Examiner, but rather, instead, it provides supplementary combinations not available to the multiplexer no matter how controlled.

In light of the above arguments, the Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Should the Examiner have any further questions, comments, or concerns related to this case and for which the Examiner deems a telephone call may expedite prosecution, the Examiner is invited to contact the undersigned at (416) 957-1697.

Respectfully submitted,

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